1. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

   Perpendicular to $3x + 4y = 15$ and passing through the point $(8, 10)$.

   A. $m \in [-1.82, -1.19]$ $b \in [19.7, 22.4]$

   B. $m \in [0.87, 1.78]$ $b \in [-1.9, -0.6]$

   C. $m \in [0.87, 1.78]$ $b \in [-0.3, 1.1]$

   D. $m \in [0.87, 1.78]$ $b \in [1.9, 3]$

   E. $m \in [-0.26, 0.92]$ $b \in [-1.9, -0.6]$

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2. Solve the equation below. Then, choose the interval that contains the solution.

$$-11(12x + 4) = -3(13x - 5)$$

   A. $x \in [-0.96, -0.63]$

   B. $x \in [-0.1, 0.58]$

   C. $x \in [-0.28, -0.02]$

   D. $x \in [-0.61, -0.2]$

   E. There are no real solutions.

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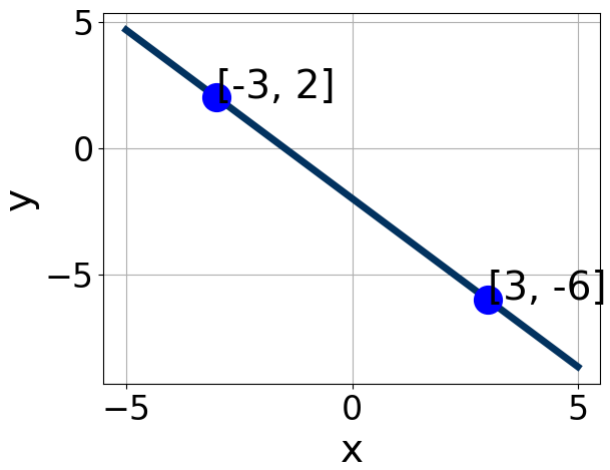
3. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.



A. $A \in [2, 6]$, $B \in [2.44, 4.14]$, and $C \in [-6.2, -4.4]$

B. $A \in [-8, -2]$, $B \in [-4.02, -2.76]$, and $C \in [2.9, 8]$

C. $A \in [-2.67, 3.33]$, $B \in [0.8, 2.59]$, and $C \in [-4.7, -0.7]$

D. $A \in [2, 6]$, $B \in [-4.02, -2.76]$, and $C \in [2.9, 8]$

E. $A \in [-2.67, 3.33]$, $B \in [-1.55, -0.2]$, and $C \in [0.4, 5]$

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4. Find the equation of the line described below. Write the linear equation in the form $y = mx + b$ and choose the intervals that contain m and b.

   Parallel to $9x + 4y = 10$ and passing through the point $(6, -8)$.

A. $m \in [-4.25, -1.25]$ $b \in [-5.5, -3.5]$

B. $m \in [-4.25, -1.25]$ $b \in [0.5, 9.5]$

C. $m \in [0.25, 4.25]$ $b \in [-21.5, -18.5]$

D. $m \in [-4.25, -1.25]$ $b \in [-16, -8]$

E. $m \in [-1.44, 0.56]$ $b \in [0.5, 9.5]$

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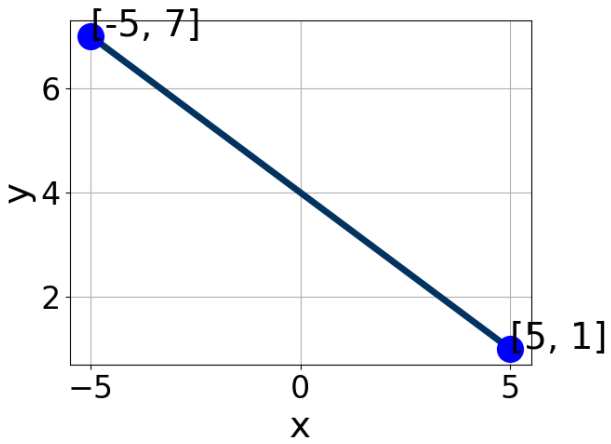
5. Write the equation of the line in the graph below in Standard Form $Ax + By = C$. Then, choose the intervals that contain $A, B,$ and C.



A. $A \in [-6, -2]$, $B \in [-6.5, -4.1]$, and $C \in [-21, -19]$

B. $A \in [1, 4]$, $B \in [-6.5, -4.1]$, and $C \in [-21, -19]$

C. $A \in [-2.4, 2.6]$, $B \in [-4.5, -0.6]$, and $C \in [-6, -2]$

D. $A \in [-2.4, 2.6]$, $B \in [0.5, 2.9]$, and $C \in [1, 9]$

E. $A \in [1, 4]$, $B \in [3.5, 5.3]$, and $C \in [19, 21]$

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6. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{3x-4}{4} - \frac{5x+6}{2} = \frac{-7x-8}{3}$$

A. $x \in [-0.2, 1.5]$

B. $x \in [-8.5, -6.8]$

C. $x \in [0.3, 3]$

D. $x \in [2.9, 5.1]$

E. There are no real solutions.

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7. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals that contain m and b.

$$(-4, -8) \text{ and } (7, -5)$$

A. $m \in [-1.69, -0.19]$ $b \in [-3.48, -3.05]$

B. $m \in [0.25, 0.35]$ $b \in [-4.26, -3.91]$

C. $m \in [0.25, 0.35]$ $b \in [-13.01, -11.52]$

D. $m \in [0.25, 0.35]$ $b \in [5.35, 7.65]$

E. $m \in [0.25, 0.35]$ $b \in [-8.14, -6.21]$

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8. Solve the linear equation below. Then, choose the interval that contains the solution.

$$\frac{4x-5}{8} - \frac{7x-8}{5} = \frac{-4x+7}{3}$$

A. $x \in [3.1, 3.26]$

B. $x \in [8.68, 9.71]$

C. $x \in [0.88, 1.5]$

D. $x \in [10.29, 11.53]$

E. There are no real solutions.

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9. Solve the equation below. Then, choose the interval that contains the solution.

$$-16(6x-13) = -10(-4x-3)$$

A. $x \in [1.32, 2.57]$

B. $x \in [-1.84, -1.38]$

C. $x \in [3.37, 4.88]$

D. $x \in [1.2, 1.37]$

E. There are no real solutions.

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10. First, find the equation of the line containing the two points below. Then, write the equation in the form $y = mx+b$ and choose the intervals

that contain m and b.

$$(9, 2) \text{ and } (4, -4)$$

A. $m \in [0.2, 4.2]$ $b \in [-9.72, -8.07]$

B. $m \in [0.2, 4.2]$ $b \in [-7.07, -6.82]$

C. $m \in [-6.2, 0.8]$ $b \in [0.18, 1.12]$

D. $m \in [0.2, 4.2]$ $b \in [8.48, 10.02]$

E. $m \in [0.2, 4.2]$ $b \in [-8.74, -7.05]$